

LPS Build 3 Requirements Review  
Meeting Minutes  
10/15/96  
**DRAFT**

Attendees: T. Aslam (CSC), D. Crehan (L-M), N. Daniel (CSC), J. Henegar (GSFC), J. Hosler (GSFC), M. Huang (CSC), H. Kim (Century), E. Lee (GSFC), D. Nguyen (L-M), R. Schweiss (GSFC), R. Shea (CSC), E. Staples (CSC), V. Trinh (CSC), M. Wong (CSC), I. Wu (CSC)

**Agenda**

Goal: Identify functionality for Build 3

Existing Requirements

Open issues - plan for resolution by Build 3 Design Review

Requirements

Summary of Post-DDS Functionality

RIDs

Open Issues

CCRs

ICCRs

**Handouts were provided by:**

**Person**

D. Crehan

**Topic**

Presentation slides

F&PS & SRS functional requirements for B3

Summary of SRS performance requirements

**Meeting Minutes**

The group reviewed Build 3 requirements derived from the F&PS and already included in the detailed design.

H. Kim stated that additional constraints must be added to the database definition in Build 3.

M. Wong stated that the PCDS function of providing bands present information from each cycle to the MACS is already included in Build 2. H. Kim stated that the MACS was already including this information in the metadata, possibly on a scene-basis. Various members of the group noted that the requirement was still metadata on a subinterval basis. H. Kim was assigned the action to verify the metadata basis (see "Since Meeting").

M Wong stated that using time coefficients for WRS scene center computations is not yet implemented and must be provided in Build 3.

### Build 3 Requirements Review Minutes

In response to a question from N. Daniel, J. Henegar stated that the HPDI boards are back from repair.

In response to a question from J. Henegar, D. Crehan stated that the Level 0R Q/A report was included in the requirements for Build 3.

In response to a question from J. Henegar, various group members stated that the RDPS already includes using thresholds for error reporting.

The group reviewed a summary of new functionality possibly required but not included in the detailed design. J. Henegar specified the functions that were to be included in Build 3 and the change control mechanism (RID or CCR) that specified the change. Where no change control mechanism existed for a function, the group generated an action to provide one. D. Crehan was tasked with providing a revised list of functions to be included annotated with change control mechanisms.

After discussion, J. Henegar stated that CCRs to provide new functionality should be written against Documentation/Detailed Design.

The group reviewed the status of all LPS RIDs. J. Henegar specified the status of several RIDs that were listed as on hold. In particular,

| <u>RID #</u> | <u>Description</u>                               | <u>Status</u>                 |
|--------------|--|-------------------------------|
| 10-06-94-R13 | Provide Manual CCA                               | REJECTED                      |
| 10-06-94-R14 | Allow IAS to get ~5 scenes/day direct from LPS   | REJECTED                      |
| 10-06-94-R29 | Append drift time                                | SUPERSEDED                    |
| 03-09-95-R02 | Apply radiometric correction to Browse & ACCA    | ACCEPT                        |
| 03-09-95-R06 | Provide extended data quality & trend statistics | REJECTED                      |
| 03-09-95-R14 | Use Day/Night flag for PAC indication            | Redundant wrt<br>11-29-95-013 |
| 11-29-95-030 | Add "(TH = N)" to thresholded messages           | Included in B3                |
| 11-29-95-038 | Present ACCA algorithm at BDR                    | Impacts IDPS<br>& not PCDS    |
| 11-29-95-039 | Present Browse algorithm at BDR                  | Impacts IDPS                  |
| 11-29-95-048 | Ensure both formats are processed                | No SW impact                  |

The group re-assigned open issues from the preliminary and detailed design phases to subsystem leads or to system engineering (for system level or general issues) for resolution by BDR.

The group reviewed new issues, determined whether the issue should be addressed, and assigned actions for issues to be addressed for resolution by BDR.

In response to a concern expressed by J. Hosler, N. Daniel stated that a plan & schedule for OS upgrade and directory structure corrections will be provided as part of another effort.

Time did not permit independent reviews of CCRs and ICCRs.

### **Actions**

- 1) T. Aslam & M. Reid: Define how bands in a browse file are mapped to RGB.
- 2) T. Aslam, C. Brambora, R. Shea: Verify that RDCS design handles playing back test data and LGS BERT receipt/playback.
- 3) T. Aslam: Provide delivery date for November DCN for LPS DFCB to N. Daniel as soon as possible.
- 4) D. Crehan & H. Kim: Write a CCR to prevent L0R parameter modifications when L0R processing is active.
- 5) D. Crehan: Provide a list of document versions to be used for B3 design.
- 6) D. Crehan: Provide requirements and algorithm for browse contrast stretch.
- 7) D. Crehan: Publish revised list of post-DDS functions with annotations describing the change mechanism associated with each.
- 8) D. Crehan: Take steps to provide an output file directory structure that does not place all subintervals for all processed contacts into a single directory.
- 9) N. Daniel: Write a CCR against the design to store status/error message text in database.
- 10) L. Gupta & I. Wu: Make writing to the trouble file optional.
- 11) L. Gupta: Provide responses to MFPS action items from preliminary and detailed design.
- 12) H. Kim & D. Crehan: Verify that using auto logon still permits rapid failover scenario.
- 13) H. Kim: Determine whether MACS metadata generating functions report bands present on a subinterval or a scene basis. Since meeting, H. Kim has stated that the metadata appears on a subinterval basis.
- 14) H. Kim: Include interface to LDTs communications control parameters.
- 15) H. Kim: Provide preliminary report contents to EDC for review by Dec./Jan.
- 16) H. Kim: Provide responses to MACS/User Interface issues from preliminary and detailed design and database issues from preliminary design.

- 17) H. Kim: Verify that L7 Calibration File version number is reported in metadata.
- 18) J. Hosler & R. Schweiss: Ensure that small subintervals are deleted at the end of a contact.
- 19) J. Hosler & R. Schweiss: Provide responses to system level action items from preliminary design (denoted SYS-n) and "general" issues from the DDS by BDR.
- 20) J. Hosler: Contact R. Irish and verify that the radiometric correction algorithm for browse is the same as the one for ACCA.
- 21) J. Hosler: Define Bit Error Rate computation for reports.
- 22) J. Hosler: Tell EDC to write a CCR against Documentation/Detailed Design to provide the capability to insert lines into the LPS journal.
- 23) M. Huang, H. Kim, D. Crehan: Ensure that UIF supports method for determining what DANs have not been sent.
- 24) M. Huang: Ensure that ldt\_rcvDDN does not lose DDNs when the system crashes, when the operator shuts down the LPS software, or when the operator disables (and thus kills) the DDN server.
- 25) M. Huang: Provide responses to LDTs issues from preliminary and detailed design.
- 26) M. Huang: Revise ldt\_rcvDDN to handle duplicate DDNs.
- 27) M. Reid: Provide responses to IDPS action items from preliminary and detailed design.
- 28) R. Schweiss: Track ECS response to question of how days beyond the end of the year are to be output and provide response to developers.
- 29) R. Shea: Provide responses to RDCS action items from preliminary design.
- 30) R. Shea: Verify that capture device API is as agreed upon at 11/22/95 meeting with C. Brambora and T. Potthaus.
- 31) Systems Engineering: Define fill values for MSCD and PCD files.
- 32) M. Wong & M. Reid: Determine what time the PCDS will transmit to the IDPS when a partial scene does not contain the center.
- 33) M. Wong, M. Reid, T. Aslam: Define coordinates for corners of partial scenes (first/last actually present scan line vs. non-existent full scene corner).

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34) M. Wong: Provide responses to PCDS action items from preliminary and detailed design.

35) I. Wu: Provide responses to RDPS action items from preliminary design.

#### **Since Meeting:**

H. Kim reports that the Build 2 software reports bands present metadata on a subinterval basis.

## Build 3 Requirements Review Minutes

### Post DDS Functions

Approved - Function is approved for inclusion in Build 3

NOT - Function is not approved for inclusion in Build 3

OPEN - Function's appearance in Build 3 is still open

| Function  | Status   | Change Mechanism |
|---|----------|------------------|
| Add JPEG compression to browse image.   | Approved | TBD              |
| Apply contrast stretch to browse image.   | Approved | RID 11-29-95-049 |
| Apply radiometric correction to browse image.   | Approved | RID 03-09-95-R03 |
| Automatically copy raw data to tape   | Approved | RID 11-29-95-041 |
| Automatically perform L0R   | Approved | RID 11-29-95-025 |
| Begin a scene with a forward scan   | NOT      | None             |
| Capability to bypass BCH  | Approved | RID 11-29-95-003 |
| Check L0R parameters for consistency across strings.  | Approved | RID 11-29-95-036 |
| Collect & store extended statistics for data quality assurance and trend analysis   | NOT      | RID 03-09-95-R06 |
| Coordinate I&Q channel processing   | NOT      | RID 03-09-95-R14 |
| Electronic schedule ingest  | Approved | RID 11-29-95-041 |
| Handle multiple contacts per tape   | NOT      | None             |
| Handle multiple DLTs per string (device name is constant while LPS software is up and running but can be set by operator) | Approved | RID 11-29-95-029 |
| Handle tape stacker (no support for single-tape drive)  | Approved | RID 11-29-95-029 |
| Insert lines into LPS Journal file by operator.   | OPEN     | None             |
| Moving window display   | Approved | CCR LPS960108    |
| Partial scene browse  | Approved | RID 11-29-95-033 |
| Partial scene metadata  | Approved | None             |
| Propagate L0R parameters from one string to others.   | Approved | RID 11-29-95-036 |
| Provide database backup script incorporated into GUI  | Approved | RID 11-29-95-032 |
| Provide periodic return link Q/A report.  | OPEN     | CCR LPS960116    |
| Provide single formula quality rating in metadata   | OPEN     | None             |
| Receive data from supplemental ground stations.   | OPEN     | None             |
| Report bands present for each scene.  | Approved | TBD              |
| Restrict parameter update permissions to privileged account(s).   | Approved | RID 11-19-95-042 |
| Save uncompressed browse images on 8mm tape.  | NOT      | None             |
| Stop data capture at scheduled LOS unconditionally.   | Approved | CCR LPS960090    |
| Store reason for stopping L0R processing run.   | OPEN     | None             |
| Store status/error messages in database and pass identifying numbers to lps_LogMessage                                    | OPEN     | None             |
| Subinterval corner coordinates in metadata  | OPEN     | TBD              |
| Support manual CCA  | NOT      | RID 10-06-94-R12 |
| Use two byte fill pattern   | Approved | RID 11-29-95-024 |